

## Clinical and Related Waste Management for Health Services

**Summary** This policy provides a minimum standard for waste management that must be met by health services to reduce uncertainty when staff move between NSW Health entities, and ensure appropriate handling and containment of specific waste streams in line with NSW legislation, licensing and waste minimisation.

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## CLINICAL AND RELATED WASTE MANAGEMENT FOR HEALTH SERVICES

### PURPOSE

This Policy Directive requires health services to meet a minimum standard for waste management. Specific waste streams must be managed in line with NSW legislation, licensing, waste management contract and waste minimisation practices. Uniform application of this Policy Directive will help to reduce uncertainty when staff move between NSW Health entities.

### MANDATORY REQUIREMENTS

Each NSW health service must establish a Waste Management Committee (WMC) and develop a Waste Management Plan (WMP) in consultation with other co-located services.

Local Health Districts (LHDs) must determine the most appropriate geographical or functional jurisdictions for each WMP to cover, ensuring that all facilities/services are covered by a WMP.

The WMP must address:

- Governance, including oversight by a WMC and clear responsibilities
- Strategies for complying with this Policy Directive, waste minimisation, training, work health and safety, auditing, incident management, procedures for specific waste stream management and contract management.

### IMPLEMENTATION

All NSW Health agencies have waste management responsibilities and need to operate in line with the minimum standards set out in this Policy Directive:

- LHDs, Speciality Health Networks and Statewide Health Services are responsible for ensuring that waste streams are managed in a safe, lawful, effective and efficient way and that their services comply with this Policy Directive
- At the LHD level, a specific position (or coordinating committee) responsible for implementation of waste management strategies and procedures must be identified and should liaise across the different facilities within the LHD
- Each health service must establish a WMC which implements a WMP in accordance with this Policy Directive
- NSW Ambulance is responsible for its own waste management policies consistent with the principles in this document.

## REVISION HISTORY

Version	Approved by	Amendment notes
August 2017 (PD2017_026)	Deputy Secretary, Population and Public Health	Mandated Policy Directive. Revised waste stream definitions and inclusion of anatomical waste as a waste stream. Standardised labelling and colour coding for specific waste streams. Introduces disposal requirements for radioactive sharps. Determination of health service boundaries at the local level. Updated online HETI training for waste management. Alignment with current standards and documents. Introduces negotiation of waste auditing with the contractor.
January 2005 (PD2005_132)	Director-General	Re-issued unchanged.
August 1998 Circular 98/89	Director-General	Definition of “contaminated waste” replaced with the term “clinical waste”. Emphasis on waste minimisation. Forms part of a package that includes the Guidelines, Generic Hospital Waste Plan and a training package.

## ATTACHMENTS

1. Clinical and Related Waste Management for Health Services: Procedures

**Clinical and Related Waste Management For Health  
Services**



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## **1 BACKGROUND**

### **1.1 Overview**

This policy directive provides a minimum standard for waste management that must be met by health services. Local Health Districts (LHDs), Speciality Health Networks and Statewide Health Services are responsible for ensuring that waste streams are managed in a safe, lawful, effective and efficient way and that their services comply with this policy directive. Uniform application of this policy directive will help to reduce uncertainty when staff move between NSW Health entities.

NSW Ambulance is responsible for its own waste management policies consistent with the principles in this document.

When specific waste streams are appropriately handled and contained through safe work practices and the use of appropriate personal protective equipment (PPE), the risk of exposure to infection, chemical contamination, radiation exposure or other health and safety issues is minimised. The adoption of waste minimisation practices can reduce costs and environmental degradation.

The mandated NSW Government waste management contract outlines the responsibilities of the waste contractor for waste transport and disposal (1).

### **1.2 Waste management responsibilities**

All NSW Health agencies have waste management responsibilities and need to operate in line with the minimum standards set out in this policy directive. At the LHD level, a specific position (or coordinating committee) responsible for implementation of waste management strategies and procedures must be identified and should liaise across the different facilities within the LHD.

### **1.3 Waste Management Committees (WMCs)**

Each health service must establish a Waste Management Committee (WMC) responsible for implementing the Waste Management Plan (see below). The WMC should have a clear terms of reference, and include representation from key areas/departments of the health service, other entities covered by the Waste Management Plan (WMP), Work Health and Safety and include expertise in waste management. WMCs should regularly review contractors' reports regarding waste streams management and collection data.

### **1.4 Waste Management Plan (WMP)**

LHDs must determine the most appropriate geographical or functional jurisdictions for each Waste Management Plan (WMP) to cover, ensuring that all facilities/services are covered by a WMP. Each service must have a WMP developed in consultation with other co-located services such as pathology, laboratories and research facilities. The WMP must address:

- Governance, including oversight by a WMC and clarity of responsibilities where there is more than one Person Conducting a Business or Undertaking (PCBU) included in a WMP
- Strategies for
  - complying with this Policy Directive
  - minimising waste
  - training and waste management promotion
  - work health and safety
  - auditing
  - measuring waste management performance
  - incident management
- Procedures for segregating, collecting, transporting, storing and disposing of waste from various areas of the service and spills management
- Contract management, including contractor details, contact arrangements, auditing, safe operating and spill management procedures and relevant insurances and Environmental Protection Agency (EPA) licences.

## **1.5 Waste minimisation**

Health services must consider how to minimise waste from the waste streams, without compromising work standards, environmental outcomes or patient/worker safety. Strategies may include:

- reduction, through product substitution, product modifications and procedural changes
- re-use, where clinically appropriate, environmentally sound, practical and cost effective to do so. Items that were packaged as single-use must never be re-used
- recycling, through increased volumes of current recycling and assessment of additional resource recovery programs for implementation.

## **1.6 Segregation**

Segregation of various streams of waste is an important part of efficient waste management. Effective segregation can be best achieved through:

- education and training to all personnel who generate waste
- reviewing of material composition (Safety Data Sheet) for waste classified as hazardous (e.g. hazardous chemicals and dangerous goods) to ensure that waste components are handled safely, including storage and disposal
- ensuring identifiable colour coding and labelling for waste streams in line with Tables 1 and 2
- providing suitable containers and bags in appropriate locations
- incorporating quick and efficient waste disposal methods into patient care procedures
- ensuring all waste can be easily, safely and correctly segregated at the point of generation.

## **1.7 Legislative Requirements, Policies and Guidelines**

Legislation relevant to clinical and related waste includes the following:

**State:**

- *Work Health and Safety (WHS) Act 2011*
- *WHS Regulation 2011*
- *Protection of the Environment Operations (POEO) Act 1997*
- *POEO Waste Regulation 2014*
- *POEO Amendment (Scheduled Activities and Waste) Regulation 2008*
- *Notice of exemption under clause 16C Number 2001 E01, POEO Waste Regulation 2005*
- *Radiation Control Act 1990*
- *Radiation Control Regulation 2013*
- *Gene Technology Act 2003*
- *Dangerous Goods (Road and Rail Transport) Act 2008*
- *Dangerous Goods (Road and Rail Transport) Regulation 2014*
- *Poisons and Therapeutic Goods Act 1966*
- *Poisons and Therapeutic Goods Regulation 2008*

**Federal:**

- Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code) 2016 (given force in NSW via the NSW Dangerous Goods legislation)
- *Gene Technology Act 2000*
- *Gene Technology Regulations 2001*

Policies and guidelines relevant to clinical and related waste include the following:

**National guidelines and policies:**

- AS/NZS 4031:1992 (Non-reusable containers for the collection of sharp medical items used in health care areas)
- AS/NZS 4261:1994 (Reusable containers for the collection of sharp items used in human and animal medical applications)
- AS/NZS 3816:1998 (Management of clinical and related waste)
- AS/NZS 2161.10 Parts 1-3:2005 (Occupational protective gloves)
- AS/NZS 4123 Parts 1-7:2008 (Mobile waste containers)
- AS/NZS 2243 Part 3:2010 (Safety in Laboratories)
- RPS No.20 Safety Guide for Classification of Radioactive Waste (ARPANSA, 2010)
- Code for the Safe Transport of Radioactive Material (ARPANSA, 2014)
- Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation (RPS14) (ARPANSA, 2008)
- Industry Code of Practice for the Management of Biohazardous Waste (including Clinical & Related Wastes) (WMAA, 2014)
- The Australian Council on Healthcare Standards (ACHS) EQulP National Guidelines Standard 15 (ACHS, 2012)

**NSW whole of government guidelines and policies**

- Waste Classification Guidelines. Part 1: Classifying waste (EPA, 2014)
- Waste Classification Guidelines. Part 3: Waste containing radioactive material

- (EPA, 2014)
- Labelling of workplace hazardous chemicals Code of Practice (SafeWork NSW, 2016)
- Code of Practice: Hazardous manual tasks (SafeWork NSW, 2016)

### **NSW Health guidelines and policies**

- PD2008\_004 Community Sharps Disposal by Area Health Services
- PD2013\_043 Medication Handling in NSW Public Health Facilities
- Guideline for Approval of Method to Treat Clinical Waste
- PD2017\_013 Infection Prevention and Control Policy
- PD2017\_010 HIV, Hepatitis B and Hepatitis C - Management of Health Care Workers Potentially Exposed
- PD2007\_052 Sharps Injuries - Prevention in the NSW Public Health System
- PD2012\_061 Environmental Cleaning Policy
- Infection prevention and control practice handbook. Principles for NSW public health organisations (CEC, 2016)
- Environmental Cleaning Standard Operating Procedures. Module 3.4 Environment (CEC-HAI, 2012)
- Environmental Cleaning Standard Operating Procedures. Module 6 Cleaning Agents (CEC-HAI, 2012)

## **2 WASTE STREAMS AND THEIR SPECIFIC MANAGEMENT: HANDLING, LABELLING, CONTAINMENT, STORAGE, TRANSPORT AND DISPOSAL**

### **2.1 Labelling of waste**

All waste containers and bin liners are to be colour coded and identified in accordance with Tables 1 and 2 (*'Waste streams'*). The labelling, packing and transport of Division 6.2 Infectious Substances must comply with the ADG Code for dangerous goods. These requirements typically apply for waste classified as UN 2814 (Category A Infectious Substances) and UN 3291 (Category B Infectious Substances). Portable and mobile bins must be marked, labelled and placarded as required by Chapters 5.2 and 5.3 of the ADG Code (2). Refer to the SafeWork NSW fact sheet on Packing and Transporting Clinical Waste (3). Health service staff will need to liaise with the transporter to ensure they have a transport document describing what is being transported – refer to section 2.7 of this policy.

### **2.2 Handling of waste bags/bin liners**

It is best practice to minimise the handling of waste bags and to avoid decanting from one bin to another. When clinical waste bags must be handled, all bags should be held away from the body by the closed top of the bag, and placed directly into a bin appropriate to the waste (see Table 1).

Gloves, apron and protective eyewear must be worn when closing the bags and placing

them into the container. Gloves worn should be appropriate for the type of waste being handled. Workplace hazard identification and risk assessment should be undertaken before purchase to select a range of gloves of suitable material, size, style and fit and consider maintenance and disposal methods (4).

Waste bags must not be filled to more than two-thirds of their capacity and contents are to be secured within the bag when closing. Excess air should be excluded without compaction, prior to closure at the point of waste generation. The bag is not to be secured with sharp protuberances, e.g. staples.

All clinical waste stream bags and receptacles stored, pending collection, should be in a secured area that permits restricted access.

**Pathology specimens** and associated materials must be double packaged.

**Anatomical waste** must be packaged to minimise the risk of the contents spilling or puncturing the bin liner before being placed into the anatomical waste bin. This includes triple bagging of body parts or amputated limbs that may have sharp bone edges and/or the use of wet bags.

Sharps must never be placed in waste bags.

### **2.3 Management of waste**

The following tables identify the management, handling, labelling, containment, and where relevant, storage and transport for various waste streams generated by health services.

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**Table 1: Management of clinical waste streams: anatomical, sharps and other clinical waste**

Waste stream	Anatomical waste	Clinical sharps waste	Clinical waste (Incl. Pathological Waste)
<b>Definition</b>	Identifiable human body parts such as limbs, organs, placenta and recognisable or large pathological specimens resulting from investigation or treatment of a patient It does not include deceased bodies	Any clinical object capable of inflicting a penetrating injury which may or may not be contaminated with blood and or body substance. This includes needles, ampoules and any other sharp objects or instruments designed to perform penetrating procedures[1]  May contain clinical material or Genetically Modified Organism (GMO)[2] waste	Clinical waste with the potential to cause injury, infection or offence: <ul style="list-style-type: none"> <li>• Unrecognisable human tissue (excluding hair, teeth, nails and anatomical waste)</li> <li>• Bulk blood or other body fluids (or body substances)</li> <li>• Material and equipment visibly stained by blood or body fluids (includes incontinence pads and disposable nappies that come from an infectious patient)[3]</li> <li>• Lab specimens, cultures or other waste from lab investigations</li> <li>• Waste from medical or veterinary research</li> <li>• Genetically Modified Organisms (GMOs)</li> </ul>
<b>Bin colour</b>	Yellow	Yellow	Yellow
<b>Lid colour of bin</b>	Orange	Yellow	Yellow
<b>Plastic bin liners</b>	Orange	N/A	Yellow
<b>Labelling of bins and if applicable liners</b>	Anatomical waste	Clinical sharps	Clinical waste
<b>Symbol</b>			
<b>Symbol (description)</b>	Black biological hazard	Black biological hazard	Black biological hazard
<b>Label (if containing viable PC1 or PC2 GMOs)</b>		Contains GMOs	Contains GMOs
<b>Specific requirements</b>	For incineration only	For incineration or autoclaving and shredding Sharps containers must be rigid-walled and meet the requirements specified in AS/NZS 4031 and AS/NZS 4261[4,5] Autoclave tape and bag indicators must be used to show autoclaving has been completed	For incineration or autoclaving [6] and shredding. Autoclave tape and bag indicators must be used to show autoclaving has been completed. Fluid may be able to be discharged into sewer depending on Liquid Trade Agreement between the health service and water utility All clinical waste once treated by a process acceptable to NSW Health[7] may be reclassified in accordance with the Waste Classification Guidelines[8] before recycling or disposal There are special precautions regarding disposal of waste related to cases of viral haemorrhagic fever[9]
<b>Relevant Act/Regulation /Australian Standard</b>	AS/NZS 3816:1998 Management of clinical and related waste AS/NZS 4123:2008 Mobile Waste Containers	AS/NZS 3816:1998 Management of clinical and related waste AS/NZS 4123:2008 Mobile Waste Containers <i>Protection of the Environment Operations Act 1997</i> <i>Protection of the Environment Operations (Waste) Regulation 2014</i>	AS/NZS 3816:1998 Management of clinical and related waste AS/NZS 4123:2008 Mobile Waste Containers <i>Protection of the Environment Operations Act 1997</i> <i>Protection of the Environment Operations (Waste) Regulation 2014</i>
<b>EPA licence requirements</b>	No	No	No

**Table 2: Management of clinical waste streams: cytotoxic, pharmaceutical and radioactive**

Waste stream	Cytotoxic waste	Pharmaceutical waste	Radioactive waste
<b>Definition</b>	Material contaminated with residues or preparations containing materials toxic or otherwise harmful to cells. This includes any residual cytotoxic drug or laboratory chemical and any discarded material or clinical waste associated with the preparation or administration or excretion of cytotoxic drugs May include Genetically Modified Organisms (GMOs) or tissues containing GMOs	Pharmaceuticals or other chemical substances specified as regulated goods in the Poisons and Therapeutic Goods Act 2008. Includes any substance specified in a Schedule of the Poisons List under the Act, as well as any therapeutic good which is unscheduled Includes expired or discarded pharmaceuticals, filters or other material contaminated by pharmaceutical products	Waste material, including sharps and clinical waste contaminated with a radioisotope which arises from the medical or research use of radionuclides, e.g. during nuclear medicine, radioimmunoassay and bacteriological procedures, and may be in solid, liquid or gaseous form, and which emits a level of radiation above the level set by regulatory authorities
<b>Bin colour</b>	Purple	Red	Red[1]
<b>Lid colour of bin</b>	Purple	Red	Red
<b>Plastic bin liners</b>	Purple	N/A	Red
<b>Labelling of bins and if applicable liners</b>	Cytotoxic waste	Pharmaceutical waste	Radioactive waste plus specific requirements below
<b>Symbol</b>		Nil	
<b>Symbol (description)</b>	White telophase	Nil	Yellow background with distinctive 'trefoil' symbol in black and the lettering 'CAUTION RADIATION' in black
<b>Label (if containing viable PC1 or PC2 GMOs)</b>	Contains GMOs		
<b>Specific requirements</b>	For incineration only Collection, transport and handling only by licensed and registered waste management companies	Storage, destruction and disposal methods must comply with PD2013_043 Medication Handling in NSW Public Health Facilities[2] Pharmaceutical waste must be incinerated at a licensed controlled waste facility. Certain pharmaceuticals may only be destroyed by authorised persons under the <i>Poisons and Therapeutic Goods Act 1966</i> [3] Pharmaceutical waste bins must be lockable	Radioactive material to be stored on-site in appropriate storage area until it decays to below the thresholds of a "radioactive substance" as defined under the Radiation Control Act and Regulation Waste is to be classified with reference to the Safety Guide for the Classification of Radioactive Waste[4] and in accordance with the EPA Waste Classification Guidelines[5] Radioactive waste must be labelled with the substance, activity level and the date at which it is measured Handling and storage to comply with a Radiation Management Plan in accordance with the Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation (ARPANSA 2008)[6] Radioactive sharps – see page 9 [7] When radioactive waste is to be transported, health services must comply with the Code of Practice for the Safe Transport of Radioactive Material (ARPANSA 2014)[8]
<b>Relevant Act and Regulation</b>	AS/NZS 4123:2008 Mobile Waste Containers <i>Protection of the Environment Operations Act 1997</i> <i>Protection of the Environment Operations (Waste) Regulation 2014</i>	<i>Poisons and Therapeutic Goods Act 1966</i> <i>Poisons and Therapeutic Goods Regulation 2008</i>	AS/NZS 4123:2008 Mobile Waste Containers <i>Radiation Control Act 1990</i> <i>Radiation Control Regulation 2013</i>
<b>EPA licence requirements</b>	No	No	Yes - Waste Classification Guidelines Part 3: Waste containing radioactive material (EPA, 2014)

***Notes on Table 1: Management of clinical waste streams: anatomical, sharps and other clinical waste***

1. Community sharps accepted or collected at a public hospital or authorised outlet of the Needle and Syringe Program are classified as clinical sharps waste and must be managed in accordance with this policy (5).
2. Genetically modified organisms (GMO) must be disposed of in clinical waste, except if the GMOs also contain cytotoxic waste in which case they must be disposed of as cytotoxic waste for incineration.
3. Incontinence pads and disposable nappies can be treated as general waste unless the material is locally judged to come from an infectious patient (and consistent with the CEC Infection Prevention and Control Practice Handbook (6)), is visibly blood stained, or is disposed of in a manner likely to cause offence such as in unusually large quantities, in which case it must be treated as clinical waste.
4. Sharps containers that are resistant to impact, penetration and leakage, are stable, have integrity of the handles/other carrying features and closure device, and have a capacity indicator (fill line) marked on the outside wall of the container must be used (7).
5. Reusable sharps containers must be readily emptied and cleaned before reuse (8).
6. Microbiological and pathological wastes must be decontaminated in accordance with Australian and New Zealand Standard 2243.3: Safety in Laboratories (9) and shredded by the waste contractor prior to disposal.
7. Waste service providers require the application form for approval of a method to treat clinical waste if they collect, transport and treat clinical waste. Refer to the Guideline for Approval of Method to Treat Clinical Waste (10).
8. Reclassify waste in accordance with the EPA step-by-step waste classification process (11) after treatment and before recycling or disposal.
9. For further clarification on requirements for disposal of infectious substances, refer to the most current Australian and New Zealand Standard 2243.3: Safety in Laboratories (9).

***Notes on Table 2: Management of clinical waste streams: cytotoxic, pharmaceutical and radioactive***

1. Radioactive sharps must be placed in a clinical sharps bin and the bin must be labelled with a radioactive sticker while the waste is radioactive, the name of the substance, activity level and the date at which it is measured. When radioactivity decays to background, the sticker must be removed and waste disposed of as clinical waste.
2. For requirements on medication handling and recommended destruction of Schedule 8 Medications, refer to PD2013\_043 Medication Handling in NSW Public Health Facilities (12).
3. Ibid. - See Note 2.
4. Refer to the RPS No.20 Safety Guide for Classification of Radioactive Waste (13) for the classification of radioactive waste in consideration of long term safety and disposal of the waste.

5. Refer to the EPA classification guidelines (14) for the step-by-step procedure to classify and manage radioactive waste.
6. For guidance on safe waste handling, segregation and storage of radioactive waste, refer to Part A2 'Requirements for Radioactive Waste' of the Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation (RPS14) (15). The Radiation Management Plan document should also address dose limit requirements for the public and occupationally exposed persons as provided in Schedule 5 of the *Radiation Control Act 1990*.
7. The policy and procedure for radioactive sharps waste management is to be determined locally in the WMP, e.g. storage in a dedicated room.
8. Specific obligations are placed on the responsible person (including obtaining consent) and transporter by the Code for the Safe Transport of Radioactive Material (RPS2) (16) which is mandated by the *Radiation Control Regulation 2013*.

### ***Management of chemical waste***

Chemical waste is generated by the use of chemicals in medical, veterinary and laboratory procedures. Chemical waste should be classified in accordance with the step-by-step waste classification process in Waste Classification Guidelines Part 1: Classifying waste (10) and the ADG Code (2).

These wastes should be managed and disposed of as per the Safety Data Sheet (SDS) for the hazardous chemical and recommended handling precautions, PPE and disposal.

All containers containing chemical waste must have labelling as per the Schedule 9 Classification, packaging and labelling requirements of Part 3 of the *WHS Regulation 2011* (17) and the Labelling of Workplace Hazardous Chemicals Code of Practice (18). This applies for a waste product that is reasonably likely to be a hazardous chemical. The waste should be packed in a container with a label in English including the following for the hazardous chemical:

- (a) the product identifier,
- (b) the name, and the Australian address and business telephone number of:
  - (i) the manufacturer, or
  - (ii) the importer,
- (c) a hazard pictogram and hazard statement consistent with the correct classification of the chemical.

A licence may be required for the disposal of high activity level radioactive substances classified as hazardous waste in accordance with the Waste Classification Guidelines Part 3: Waste containing radioactive material (EPA, 2014), i.e. waste with a specific activity greater than 100 becquerels per gram and consisting of, or containing more than, the prescribed activity of a radioactive element in Schedule 1 of the *Radiation Control Regulation 2013* – refer to the Note section of these guidelines (14).

### ***Management of general waste***

General waste should be contained in white or opaque bags which are labelled

according to the WMP. General waste is any waste that:

- is not included in Tables 1 and 2, and
- is not chemical waste, and
- has not been in contact with infectious agents, hazardous chemicals or radioactive substances, and
- does not pose a sharps hazard.

General waste may be further separated into recyclable or compostable streams as described in local waste/environmental management plans. Recycling strategies and labelling of general waste should be outlined in the WMP.

## **2.4 Mobile Garbage Bins (MGBs) and trolleys**

MGBs are re-usable rigid-walled containers used to contain and move clinical and related wastes – refer to Tables 1 and 2. Trolleys are used to move clinical wastes contained in plastic bags or non-mobile rigid-walled containers (19).

MGBs and trolleys must be dedicated solely for collecting and transporting waste to decrease spills, minimise collector contact with waste and minimise manual handling. MGBs and trolleys must be washable, with a lid that is lockable. MGBs must be securely closed during movement but not necessarily locked (19, 20), unless the MGB is a pharmaceutical waste bin. Refer to section 2.4.1 for further requirements.

MGBs and trolleys must never be overfilled and the load should not be more than three-quarters full (i.e. less than 55 kg). Waste collection rounds should be performed as often as necessary to minimise housekeeping hazards.

If MGBs and trolleys are not removed and cleaned by the waste contractor then the following procedures are recommended to be regularly completed by the health service (21, 22):

- rinse with cold water then wash with warm water and a neutral detergent, or equivalent (e.g. chemical formulated for cold water use)
- trolleys and MGBs should then be drained to sewer and left to dry
- clean trolleys and bins should be stored separately to soiled containers
- appropriate personal protective equipment must be worn when cleaning MGBs
- waste water may only be diverted to the sewer.

### **2.4.1 Management of MGBs and bags**

MGBs should be readily inspected and cleaned after each use by the waste contractor. Defective containers must be repaired before use or taken out of service. Plastic bags/liners must have sufficient strength to safely contain waste and be suitable for the purpose if used for moist heat sterilization (19).

Chemical waste containers must be suitable for the chemical contained within and labelled (refer to section 2.1 of this policy).

## **2.5 Internal transport and tracking**

All health services must optimise the waste collection process, reduce handling and transportation, and promote safe work practices. Waste transport routes should avoid food preparation and heavily used areas where possible. Chutes must not be installed or used for the transport of wastes. Waste collection times must be routine to facilitate effective housekeeping and waste disposal practices.

Health services should comply with the record keeping requirements specified in the EPA clinical waste tracking exemption (as in force from time to time) for clinical waste, cytotoxic waste, sharps waste, pharmaceuticals and poisons, and radioactive waste (23).

## **2.6 Storage areas**

Storage areas are to be cleaned regularly and to be kept free from odour and vermin. Health services must provide an enclosed structure such as a shed, garage, cage, fenced area or separate loading bay to store waste.

The storage area for anatomical and/or clinical waste may require refrigeration to prevent decomposition of the waste, if the waste is not removed on a frequent basis.

The holding area must be located away from food and clean storage areas, be inaccessible to the public, have a lockable door and rigid impervious flooring. If it is not practicable to lock the area, all bins in that area are to be locked. Where practicable, loading and unloading should occur within the storage area (19). Clean up facilities, spills kits, appropriate drainage and bunding (i.e. retaining walls within the storage area to contain any material that has escaped) should be provided.

## **2.7 Waste transport and disposal**

While external transporters obligations are covered by the NSW Government waste contract (1), the requirements of the ADG Code may apply to the contractor for the transport of Division 6.2 Infectious Substances. When triggered, there may be requirements to supply the transporter with appropriate transport documents. Transport documents must describe the dangerous goods being transported, and appropriate emergency information for those goods (2). The ADG Code requirements commonly apply [for the packing and transport of the following waste categories:](#)

- [UN 2814 \(Category A Infectious Substances\): Infectious substances affecting humans](#)
- [UN 3291 \(Category B Infectious Substances\): Infectious substances which do not meet the criteria for inclusion in Category A, which includes clinical wastes which are reasonably believed to have a low probability of containing infectious substances. Refer to Chapter 2.6.3 of the ADG Code for further information on classification \(2\).](#)

Refer to the SafeWork NSW factsheet - Packing and transporting clinical waste (3), which assists health services with the handling and transport of UN3291 clinical waste in accordance with Packing Instruction P62A of the ADG Code (2). UN [2814 waste may](#)

[involve higher hazards and will need to comply with full packing and transport requirements of the ADG Code.](#)

## **2.8 Spill management**

Health services must manage waste spills as they occur in the facility, ensuring that:

- the WMP specifies procedures for waste spills
- personnel involved in spill management are trained in emergency procedures and handling requirements, including use of spill kits. Spill kits should be readily accessible throughout the health service and clearly labelled and mapped
- health services have personal protective equipment and emergency spill kits that are appropriate to the waste streams handled, so staff can safely and effectively clean spills and dispose of the waste
- spill kits should be disposed of with the relevant waste stream
- spill kits are restocked with the necessary components immediately after use, returned to their locations and regularly inspected for malfunctioning or missing components.

The WMC or equivalent is responsible for identifying other types of spill kits that might be needed to address spills from other waste streams.

## **2.9 Auditing**

Auditing is important to establish benchmarks and whether waste is appropriately managed. The WMP is to include working with the supplier and reviewing contractor information and should include an auditing process, including frequency and selection of samples. Audits may include:

- checking waste streams are appropriately used and managed
- checking that bags and MGBs/trolleys are not filled with loads more than two-thirds or three-quarters of their capacity, respectively
- review of WMP
- interview with key staff
- review of records.

Auditing should be conducted by the waste management contractor at a frequency determined by the contract (for example, on an annual basis) upon negotiation with the contractor and WMC. The frequency of auditing should be included in the WMP.

Refer to NSW Government C1002676 Waste Audit Services which LHDs can access if they require an independent waste audit (24).

## **3 WORK HEALTH AND SAFETY**

### **3.1 Notifying Incidents**

Reporting serious injuries and illnesses is a requirement under the WHS legislation (see Part 3 Incident Notification, s35-39 of the *WHS Act 2011*) (25). If a serious injury or illness, a death or a dangerous incident occurs, processes must be in place to ensure it is reported to SafeWork NSW immediately and the workers compensation insurer is notified within 48 hours. Staff must be made aware of and trained in processes for notifying incidents.

Depending on the nature of materials involved in incidents, there may be other legislative requirements regarding who must be informed if there is an incident.

For example, the Gene Technology Regulations require that the Gene Technology Regulator is informed if there is an unintentional release into the environment of, or inadvertent exposure of persons to, certain classes of GMOs.

### **3.2 Hygiene and Cleaning**

The health service must provide hand hygiene facilities for workers and promote regular hygiene procedures that comply with the NSW Health Infection Prevention and Control Policy (26).

In addition the health service must:

- designate specific areas for equipment cleaning (e.g. bunding or enclosed areas), maintenance and hygiene that are properly equipped with emergency showers and drainage to sewer. Locations of emergency showers and spills equipment should be understood by relevant workers and identified throughout the health service, e.g. on the evacuation diagram,
- regularly clean and maintain equipment used to contain and transport waste
- clean all contaminated items as soon as possible, using appropriate detergents (i.e. neutral detergents), and hospital grade disinfectants approved by hospital policy (21, 27)
- when cleaning contaminated items ensure staff wear appropriate Personal Protective Equipment (PPE), including face protection, use a scrubbing brush, and avoid splashing the water (26). If any item of PPE becomes contaminated or damaged, the item must be changed before continuing with the task.

### **3.3 Personal Protective Equipment (PPE)**

Staff must use appropriate PPE when necessary and the health service must have a range of PPE that is suitable for the nature and degree of the identified hazard.

For tasks involving hazardous chemicals, ensure that the PPE recommended in the Safety Data Sheet (SDS) is provided and used.

Staff must be trained in the proper selection, fitting (donning/doffing, or putting on/removing), storage and maintenance of PPE.

Health services must ensure all contractors, such as waste collectors, comply with all WHS and other legislative requirements, e.g. wearing appropriate PPE.

### 3.4 Sharps, blood and body fluids (or body substances) exposures

Needlestick injuries or exposures to blood and/or body fluids (or body substances) must be reported internally in accordance with the health organisation policy and should be managed as outlined in PD2017\_010 HIV, Hepatitis B and Hepatitis C - Management of Health Care Workers Potentially Exposed (28). Refer to the NSW Health Infection Prevention and Control Policy (26).

Not all needlestick injuries or exposures to blood and/or body fluids need to be notified to SafeWork NSW – refer to their factsheet *When to notify blood, body substance and needlestick exposure incidents* for guidance on what incidents **must** be notified (29).

## 4 TRAINING AND INFORMATION

Management, including LHDs and health services management, are responsible under the WHS legislation for providing appropriate information, training, instruction and supervision to ensure that safe systems of work are developed and maintained to minimise the risk of injury associated with waste handling and facilitate efficient waste management.

All workers need to know how to handle waste safely and notify incidents, including casual staff, contractors and volunteers. It is the responsibility of each health service to identify all workers that require training and ensure that the training is undertaken to the standards required by this policy. This includes providing a waste management education module as part of the orientation for all new relevant staff.

The Health Education and Training Institute NSW (HETI) offers online learning and training modules on waste processes through My Health Learning. Specific training in all procedures associated with the implementation of the WMP should be provided to:

- waste generators
- handlers, collectors
- transporters
- key management staff.

Training programs by the health service should aim to prevent injury and disease by ensuring the health services include:

- infection control and hand hygiene procedures
- approved work practices, including specific waste handling and disposal, spill management, spill kit locations, etc.
- regulatory requirements and methods of compliance

- the provision and use of required PPE
- WHS and public health information relating to the equipment and chemicals/drugs used in the health service, e.g. SDSs for hazardous chemicals, handling of hazardous goods, hazardous manual tasks, operating manuals for clinical devices, sharps injury prevention, etc.
- first aid and treatment for needle stick and blood and body fluid (or body substance) exposure
- emergency response procedures and facilities (e.g. emergency showers, etc.)
- details of workplace vaccination program, post-incident counselling services with rights to privacy, etc.

Training programs must be revised as new equipment and work processes are introduced, or as technological change occurs, to ensure they do not introduce any new hazards.

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## **APPENDIX A: ABBREVIATIONS**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail
<b>AS/NZS</b>	Australian/New Zealand Standard
<b>EPA</b>	Environment Protection Authority
<b>GMO</b>	Genetically Modified Organism
<b>HETI</b>	Health Education and Training Institute NSW
<b>HIV</b>	Human Immunodeficiency Virus
<b>LHD</b>	Local Health District
<b>MGB</b>	Mobile Garbage Bin
<b>PC1 GMO</b>	Physical Containment Level 1 facility Genetically Modified Organism
<b>PC2 GMO</b>	Physical Containment Level 2 laboratory Genetically Modified Organism
<b>PCBU</b>	Person Conducting a Business or Undertaking
<b>POEO Act</b>	<i>Protection of the Environment Operations Act 1997</i>
<b>PPE</b>	Personal Protective Equipment
<b>SDS</b>	Safety Data Sheet
<b>Waste Regulation</b>	<i>Protection of the Environment Operations Regulation 2014</i>
<b>WHS</b>	Work Health and Safety
<b>WHS Act</b>	<i>Work Health and Safety Act 2011</i>
<b>WHS Regulation</b>	<i>Work Health and Safety Regulation 2011</i>
<b>WMC</b>	Waste Management Committee
<b>WMP</b>	Waste Management Plan

**APPENDIX B: IMPLEMENTATION CHECKLIST**

<b>LHD/Facility:</b>			
<b>Assessed by:</b>		<b>Date of Assessment:</b>	
<b>IMPLEMENTATION REQUIREMENTS</b>	<b>Not commenced</b>	<b>Partial compliance</b>	<b>Full compliance</b>
1. A specific position (or coordinating committee) has been identified as responsible for implementing waste management strategies and procedures. Position/committee should liaise across the different facilities within the LHD.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<u>Notes:</u>		
2. Each health service has established a Waste Management Committee (WMC).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<u>Notes:</u>		
3. All facilities/health services in the LHD's jurisdiction are covered by a Waste Management Plan (WMP) developed in consultation with other co-located services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<u>Notes:</u>		
4. All staff have completed the updated HET1 (My Health Learning) training module for Waste Management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<u>Notes:</u>		
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<u>Notes:</u>		
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<u>Notes:</u>		